

# AEROFLEX LABORATORIES INCORPORATED

SOUTH SERVICE ROAD, PLAINVIEW, LONG ISLAND, NEW YORK

AREA CODE 516 MY 4-6700

## PLEASE NOTE:

FORWARD WHITE COPY AND RETAIN  
YELLOW COPY FOR YOUR FILES.

## SPECIFICATION FOR TQ TORQUE MOTOR

Provision is made below for describing in detail the desired performance characteristics for your TQ Torque Motor requirements. When completed, this form will enable our engineering staff to offer a design which is optimized for your application. Due to the interdependency of the parameters listed below, it is requested that you indicate which of these are mandatory and which can be variable to achieve the mandatory characteristics. Please retain one copy for your files.

### 1) TQ TORQUE MOTOR

#### A. Performance Requirements

Max. Torque \_\_\_\_\_ (specify oz. in. — lb. in. — lb. ft.)  
Duty Cycle \_\_\_\_\_ Power Input \_\_\_\_\_ watts  
Angle of Rotation  $\pm$  \_\_\_\_\_ degrees  
Load Inertia \_\_\_\_\_ x 10<sup>-</sup> In-lb-Sec<sup>2</sup>  
Operating Temperature Range + \_\_\_\_\_ °C to — \_\_\_\_\_ °C  
Torque Linearity: a) Torque gradient vs position \_\_\_\_\_ %  
b) Torque vs current \_\_\_\_\_ %

#### B. Electrical Requirements

Type of Winding:  
a) Single Winding: two terminal \_\_\_\_\_  
b) Split Winding: push pull four terminal \_\_\_\_\_  
Resistance of Winding(s) \_\_\_\_\_  $\Omega$  (each coil)

#### C. Physical Requirements

Form Factor: (a) Segment Type \_\_\_\_\_ (b) Circular Type \_\_\_\_\_  
A sketch of the available space and mounting provision will assist in the selection of mounting arrangements.

### 2) AMPLIFIERS

For systems operation w  
offer transistorized solid

#### A. Amplifier Specification

Signal Frequency \_\_\_\_\_  
Input Signal Magnitude \_\_\_\_\_  
Maximum Signal on I \_\_\_\_\_  
Required Amplifier I \_\_\_\_\_  
Available Power Sup \_\_\_\_\_  
Available Power Sup \_\_\_\_\_  
Available Power Sup \_\_\_\_\_  
Operating Temperature \_\_\_\_\_

### 3) GENERAL:

Quantity \_\_\_\_\_  
Delivery Required \_\_\_\_\_  
Please provide the following  
Name \_\_\_\_\_  
Company \_\_\_\_\_  
Address \_\_\_\_\_  
Telephone Number \_\_\_\_\_

Please use the other side of t  
information.

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TEL: 516-MY 4-6700

TWX: 516-694-3266

## SPECIFICATION FOR TQ TORQUE MOTORS

Provision is made below for describing in detail the desired performance characteristics for your TQ Torque Motor requirements. When completed, this form will enable our engineering staff to offer a design which is optimized for your application. Due to the interdependency of the parameters listed below, it is requested that you indicate which of these are mandatory and which can be variable to achieve the mandatory characteristics. Please retain one copy for your files.

### 1) TQ TORQUE MOTOR

#### A. Performance Requirements

Max. Torque \_\_\_\_\_ (specify oz. in. — lb. in. — lb. ft.)  
Duty Cycle \_\_\_\_\_ Power Input \_\_\_\_\_ watts  
Angle of Rotation  $\pm$  \_\_\_\_\_ degrees  
Load Inertia \_\_\_\_\_ x 10<sup>-4</sup> In-lb-Sec<sup>2</sup>  
Operating Temperature Range + \_\_\_\_\_ °C to — \_\_\_\_\_ °C  
Torque Linearity: a) Torque gradient vs position \_\_\_\_\_ %  
b) Torque vs current \_\_\_\_\_ %

#### B. Electrical Requirements

Type of Winding:  
a) Single Winding: two terminal \_\_\_\_\_  
b) Split Winding: push pull four terminal \_\_\_\_\_  
Resistance of Winding(s) \_\_\_\_\_  $\Omega$  (each coil)

#### C. Physical Requirements

Form Factor: (a) Segment Type \_\_\_\_\_ (b) Circular Type \_\_\_\_\_  
A sketch of the available space and mounting provision will assist in the selection of mounting arrangements.

### 2) AMPLIFIERS

For systems operation with an Aeroflex DC Torque Motor we offer transistorized solid state companion amplifiers.

#### A. Amplifier Specification

Signal Frequency \_\_\_\_\_  
Input Signal Magnitude for Max. Torque \_\_\_\_\_  
Maximum Signal on Input \_\_\_\_\_  
Required Amplifier Input Impedance \_\_\_\_\_  
Available Power Supplies: volts \_\_\_\_\_ frequency \_\_\_\_\_  
Available Power Supplies: volts \_\_\_\_\_ frequency \_\_\_\_\_  
Available Power Supplies: volts \_\_\_\_\_ frequency \_\_\_\_\_  
Operating Temperature Range: Low \_\_\_\_\_ High \_\_\_\_\_

### 3) GENERAL:

	Motors	Amplifiers
Quantity	_____	_____
Delivery Required	_____	_____

Please provide the following information:

Name \_\_\_\_\_ Title \_\_\_\_\_  
Company \_\_\_\_\_ Dept. \_\_\_\_\_  
Address \_\_\_\_\_  
Telephone Number \_\_\_\_\_ Extension \_\_\_\_\_

Please use the other side of the page for any comments or additional information.



# AEROFLEX LABORATORIES INCORPORATED

SOUTH SERVICE ROAD, PLAINVIEW, LONG ISLAND, NEW YORK

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Subject: Brushless DC Torque Motor

Dear Sir:

We appreciate receiving your recent inquiry requesting descriptive material on our new and unique TQ series of DC Torque Motors. Accordingly, we enclose a set of technical data sheets for several of our torque motors.

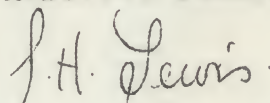
This new series of limited rotating devices have been developed with a new approach to dc motor design; the complete elimination of brushes and commutators. Since there are only two parts, the rotor and stator, you now have a new dimension in simplicity and reliability. Please note the additional feature of pancake type mounting. For your convenience, we are attaching a specification questionnaire and invite further correspondence with respect to your particular applications.

If further information is required, please do not hesitate to contact us or our sales representative in your area noted below.

Thank you for your interest in Aeroflex products.

Very truly yours,

Aeroflex Laboratories Incorporated



J. H. Lewis, Sales Manager  
Torque Motor Products

AEROFLEX TECHNICAL SALES REPRESENTATIVES

ATLANTA, GEORGIA

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BOSTON, MASSACHUSETTS

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Tel: 513-271-7733

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207 E. Hackensack St.  
Woodridge, N.J.  
Tel: 201-GE8-2780

SOUTHERN NEW JERSEY

Aerol Associates Inc.  
207 So. Harrison St.  
East Orange, N. J. 07018  
Tel: 201-676-4080

METROPOLITAN NEW YORK CITY  
(Inc. FAIRFIELD COUNTY, CONN)

Podeyn & Schmidt  
420 Northern Boulevard  
Great Neck, L.I., N.Y.  
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WASHINGTON, D.C.

Aerol Associates Inc.  
2430 Pennsylvania Ave N.W.  
Washington, D.C.  
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